Monomoy Point Light Station
Along a footpath, approximately 3,500 feet
northeast of Powder Hole Pond
Monomoy National Wildlife Refuge
Chatham
Barnstable County
Massachusetts

HAER No. MA-62

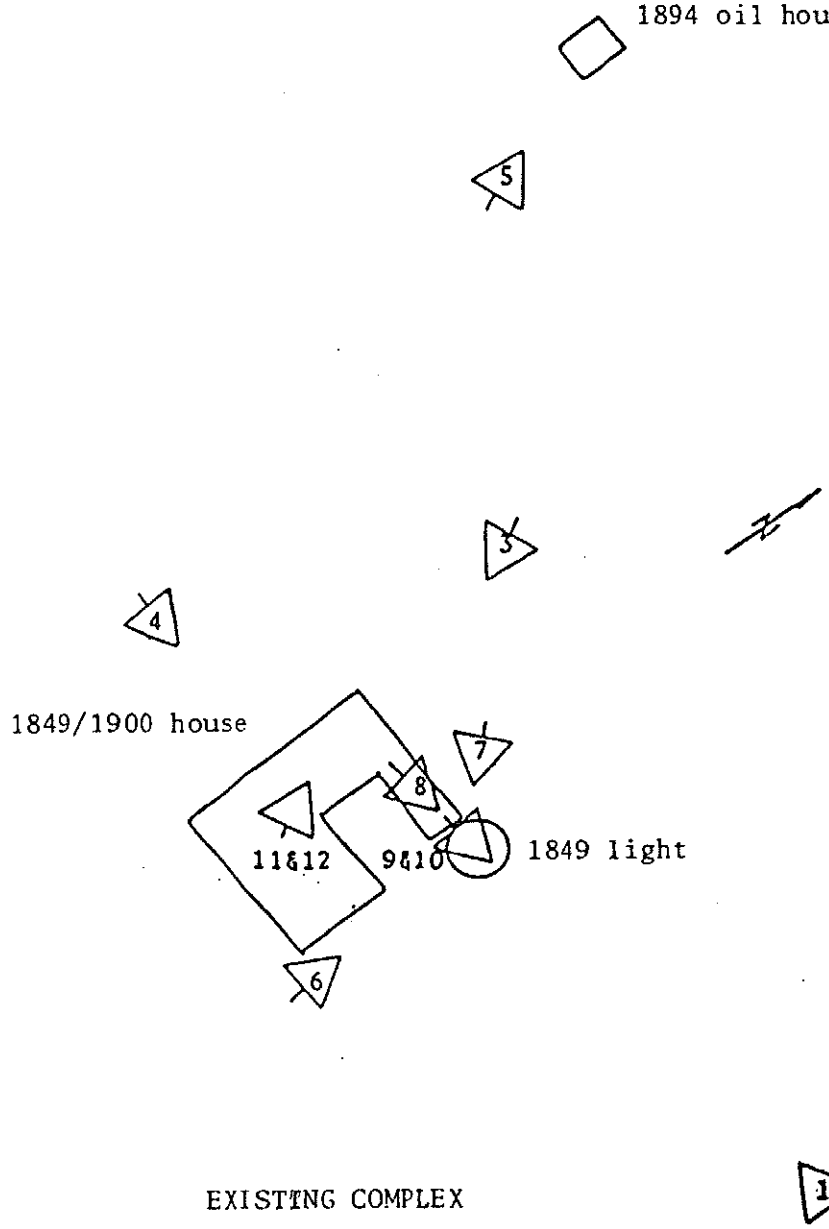
HAER
MASS,
1-CHAT,
6-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Mid-Atlantic Region
National Park Service
U. S. Department of the Interior
Philadelphia, Pennsylvania 19106

KEY TO PHOTOGRAPHS



EXISTING COMPLEX

HAER
MASS,
1-CHAT,
6-

HISTORIC AMERICAN ENGINEERING RECORD

Monomoy Point Light Station

HAER No. MA-62

Location: Along a footpath, approximately 3,500 feet northeast of Powder Hole Pond, in the Monomoy National Wildlife Refuge, Chatham, Barnstable County, Massachusetts

UTM: 18.417100.4601100
Quad: Monomoy Point, MA

Dates of Construction:
1823 - original light and house built
1849 - existing light and house built
1857 - light modified
1857 - house possibly modified
1865 - house repaired
1868 - house repaired
1889 - house repaired
1892 - light modified
1894 - oil house built
1899-1900 - house partly rebuilt
c. 1964 - house repaired

Designers:
Original designers: Unknown
Lenticular apparatus: Henri Lepante
House redesign: Maj. of Engineers William Stanton

Builders:
1823 light and house: James B. Gill
1849 light: Cyrus Alger & Co.
1849 house: Pelham Bonney

Present Owner: U. S. Fish and Wildlife Service, Northeast Region 5
One Gateway Center
Newton Corner, MA 02138

Present Use: Vacant

Significance: Originally built in response to Federal period growth in coastal traffic, the Monomoy Point Light Station is now significant as an early example of cast-iron light construction for a secondary, fixed coastal light. The complex today lacks the light's glass, lamp, and lens, and several auxiliary structures, but remains relatively well-preserved with its modified Cape cod dwelling and brick oil house. The site retains evidence of mid-nineteenth century cast-iron light construction, and a vivid sense of the isolation inherent in lighthouse operation. There is also

unexplored potential here for archaeological remains of the 1823 station and artifacts of its use and occupation, aspects of early 19th century lighthouse administration, which are rarely studied.

Project Information: The U. S. Fish and Wildlife Service funded this documentation prior to restoration of the light station, in compliance with the National Historic Preservation Act (PL-665) and a Memorandum of Agreement among the the Fish and Wildlife Service, the Massachusetts Historical Commission, and the Advisory Council on Historic Preservation. Documentation took place in July and August 1987.

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PART I. HISTORICAL INFORMATION

United States Lighthouse Services and the Role of Monomoy Point Light

Federal management of lighthouses was an early concern of a national government anxious to develop foreign and domestic commerce. The first congressional authorization for lighthouse expenditures was passed in August 1780, and by 1797, the states had ceded control of the twelve pre-Federal lighthouses. The Treasury Department managed, or was nominally responsible for, lighthouses and related facilities until 1903, under two very different systems of management.

Treasury Department officials authorized and dispersed funds for construction, maintenance, and supply of lighthouses through the first half of the nineteenth century, without any formal means of inspecting or improving facilities. Until 1820, the Secretary of the Treasury or the Commissioner of Revenue was directly responsible for lighthouses, followed by the Fifth Auditor of the Treasury, who was the chief lighthouse administrator until 1952. Customs collectors acted as superintendents for lights in their districts, while supply contractors performed most inspection and reporting services. The regime of Fifth Auditor Stephen Pleasanton, who held the post throughout the 1820-52 period, was noted for its technical and fiscal conservatism. Given European advances in light construction, by the 1830s, concern about the adequacy of a rapidly expanding lighthouse network led to a series of investigations into American lighthouse management (Johnson 1890; Weiss 1926).

The work of special inspectors, agents, and boards culminated in 1852 with the creation by Congress of the Lighthouse Board, which, while presided over by the Secretary of the Treasury, differed markedly from earlier management of lighthouses. The board consisted of pairs of Army engineers, Navy officers, and civilian scientists, who were then divided into committees responsible for problems, such as light location and methods of illumination. The board authorized expenditures and supervised activities in lighthouse districts, where Army engineers provided technical services and Navy officers acted as inspectors. Following the board's establishment, rapid improvements in standard illuminating systems occurred with the installation of Fresnel lenses in all American lights by 1859. Although they made significant improvements in lighthouses and other navigational guides, the board encountered persistent coordination problems in the divided civilian/military, Army/Navy system of management. Transfer of the Lighthouse Board to the new Department of Commerce and Labor in 1903 did nothing to correct these problems. In 1910, a new Bureau of Lighthouses replaced the board with a gradual transition to civilian administration. The bureau's district each had one inspector, who combined the formerly-divided engineering and inspection roles of the Lighthouse Board era. The bureau remained in operation until the absorption of lighthouse management by the Coast Guard in 1939 (Johnson 1890; Weiss 1926; Willoughby 1929).

Under the Fifth Auditor, the Monomoy Point Light Station was built in 1823 and rebuilt in 1849, with later modifications limited primarily to installation of a Fresnel lens apparatus in 1957, addition of a red sector in the lantern in 1892, various repairs and alterations to the dwelling, and construction of several auxiliary structures. The station's origins reflect Federal period changes in coastal traffic around Cape Cod. Technical problems with the first station, fairly radical but successful attempts to correct them late in the Fifth Auditor's regime, the inertia inherent in building a stable, secondary, nineteenth century American light, and other navigational improvements largely account for the nature of the existing, rebuilt station.

Monomoy Point is part of a very active sand spit off the Cape's southeast corner, subject to frequent reshaping by the sea, with Pollock Rip and other dangerous shoals immediately east and south of the point. Regional maritime traffic prior to c. 1815 focused on routes between the Cape and Boston, and between the Cape, Nantucket, and Martha's Vineyard. The earliest lights, including colonial facilities at Boston, Nantucket and Plymouth, aided this traffic. Expansion of coastal traffic between Boston and New York followed the emergence of domestic industry, increased trans-oceanic commerce, and New England importation of western grain by way of the Erie Canal. Passage through Nantucket Sound and around Cape Cod was a hazardous link in this new pattern. Federal response to the navigational problems included construction of nine Cape Cod lights between 1815 and 1839, of which perhaps half were probably built primarily for the Boston-New York route (Albion 1970: 101, 122-30; Loparto and Steinitz 1987: 92-97).

The Monomoy Point light was evidently first intended as a guide past the point to Old Stage Harbor on Chatham's south shore, but soon became part of the circum-Cape route. Earlier, more powerful lights at Chatham (from 1807) and Nantucket's Great Point (from 1784) allowed vessels to give the shoals near Monomoy Point a relatively wide berth; however, requiring a less important light there. Shortly after the Monomoy station was rebuilt in 1849, Federal mooring of the Pollock Rip Lightship improved the passage past the shoals, making the Monomoy Point light one of several guides in this vicinity. The light's secondary status was codified with installation of a Fourth Order Fresnel lens apparatus (the orders decrease in magnitude from one to six), and with a stable tower supporting the lantern, the Lighthouse Board felt little need to improve this station, despite recommendations by district officers for a more powerful light. By c. 1880, installation of the Shovelful Shoals and Handerchief lightships, south and southwest of Monomoy Point, made substantial upgrading of the light station unnecessary, while sand disposition at the point, pushing the shore well south and east of the light, may have made upgrading impractical. After two decades of discussion, in 1892 the board authorized only placement of a red sector in the lantern, the designate the opening of Pollock Rip Slue. When the Bureau of Lighthouses improved the Chatham Point, the Monomoy station became superfluos and was closed (Willoughby 1929: 166-167, 188).

The First Monomoy Point Light Station, 1823-1849

Any requests from local citizens or Federal officials for a light at Monomoy Point remain undocumented, as do decisions by the Fifth Auditor leading to the 1823 construction of the first light station. The site's location, however, reflects the basic navigational problems at the point, as well as the availability of property. The point, sometimes known as Sandy Point, is at the south end of Monomoy Beach, a sand spit no more than 15 feet above mean sea level along most of its 10-mile length. At different times, storms and sand shifts have left the beach either attached to the mainland, separated from the mainland as a single island, or split into two islands, as is at present. The east side of the beach, exposed to the Atlantic Ocean, is subject to the dangerous currents and shifting sands which gave pause to all navigators in these waters. The west side, in Nantucket Sound, offers shallower water but greater shelter. Since the 16th century, a small cove, about four miles north of the light station site, became a haven for vessels rounding the Cape. By 1700, the hazards of this haven, when winds shifted, earned it the name of Wreck Cove and, for several decades in the early 18th century, a lone house and tavern operated here as an outpost for the shipwrecked. Monomoy Beach's exposed position encouraged no other documented settlement. Early colonial Chathamites used the salt marsh and sedge grass on the west side for pasture. By 1725, various claims to the beach were settled, and the proprietors divided the pasture areas into lots, soon abandoning open pasturage for the mowing of these lots for hay. The more exposed east side had little grass and was of limited value. In 1819, the proprietors sold the undivided beach areas. Richard Sears, Samuel Doane, Reuben Taylor, Daniel Bearse, and Jonah Crowell bought the southeast end of the beach at this time, probably for seasonal fishing. Milford Hawes evidently purchased Bearse's rights thereafter, and the five owners sold a four-acre parcel, along with a one-rod-wide strip leading several hundred feet southeast to the beach, to the United States in June 1823. The tract was then probably near the extreme southeastern edge of Monomoy Point, so that in theory a light there would warn vessels away from the shoals to the east, and guide them past the point for travel either along the beach's west side (to or from Old Stage Harbor) or across Nantucket Sound (Lighthouse Site File, Massachusetts No. 47; Smith 1909-47: 202-211).

Acting on behalf of the Fifth Auditor, the Collector of Customs for the Boston District contracted with James B.; Gill of Hingham to build a light and house on the newly-purchased tract. Gill apparently finished his work, described in more detail in Part II of this documentation, during September 1823, although the light may not have operated until somewhat later. The light station, located on a small rise near the center of the tract, consisted of a one-story brick house surmounted by an octagonal wood frame light tower that rested on the roof or attic beams. The oil-burning lamps shone from behind blue glass about 25 feet above the ground surface, or 35-40 feet above mean sea level, in an octagonal wrought iron lantern. As with all other American lights outfitted

between 1812 and c. 1840, the first Monomoy Point station had a series of lamps, silver-coated copper reflectors, and probably glass lenses with purported magnifying powers, in a system patented by Winslow Lewis in 1810 and purchased by the government two years later. The lamps were constructed along lines devised in 1780 by Aime' Argand, with cylindrical wicks. Fifth Auditor Pleasanton retained Lewis's system for at least a decade after far more effective illuminating methods appeared in France, and favored Lewis himself with numerous light construction and oil supply contracts into the 1830s (Lighthouse Deeds and Contracts D: 75-6; Johnson 1890: 49; Snow 1945: 19-21; Witney 1975: 178-9; Tougas 1978).

Along with conical masonry towers, this type of station typified lights built in New England before x. 1849 and, as with some other wooden towers so erected, the Monomoy Point light may have weakened the house framing and contributed to a relatively rapid deterioration of the station. The limited documentation available for the first station indicates that the foundations and superstructure were too heavy for the unstable sANd spit. By 1834, wind blew sand away from the brick house foundation, exposing and undermining them. Attempts to stabilize the foundations included repairs of the brick corners, which continually eroded, and placing cut seaweed around the house. The structure evidently deteriorated rapidly after 1843. By the spring of 1849, settling of the northeast corner had broken some glass in the lantern and exposed many structural members to water damage, so that most wood elements were decayed. Noting the difficulty of making a light tower watertight on a house roof, and the additional house construction costs incurred by building higher walls to support the tower, Joseph T. Pease, Superintendent of Lights for the Edgartown district, recommended construction of a new, separate, higher tower and removal of the house in July 1849. The Fifth Auditor, by then probably highly sensitive to a decade of criticism about American lights, immediately authorized replacement of the station (Correspondence from the Superintendent of Lights, Edgartown, MA to the Fifth Auditor, September 1833--1836, and April 1842-August 1849; Johnson 1890: 25).

Construction and Operation of the Existing Monomoy Point Light, 1849-1923

The Collector of Customs for the Boston District, in his capacity as Superintendent of Lighthouses in Massachusetts, contracted with Cyrus Alger & Co. of Boston in August 1849 for construction of a cast iron light tower and lantern, while his counterpart in Edgartown contracted in October 1948 with Pelham Bonney, also of Boston, for construction of an adjacent wood frame lightkeeper's house with a brick cellar. It is not clear why two different collectors administered these contracts; the qualifications or backgrounds of the builders remain undocumented. The light was completed by December 1849, with the house probably finished that month or early the next year. Although modified, as described below, with different illuminating apparatus, later outbuildings, and remodeling of the house, the complex, completed in 1849, comprises the major surviving structures (Lighthouse Deeds and Contracts H:

363-4, 375-7). Earlier interpretations of station refitting, planned or accomplished, have led to repeated assertions that the existing tower dates to 1871 (e.g., Snow 1945: 349-50; Tougas n.d.; Stott 1987: 248).

The unknown designer(s) of the 1849 Monomoy Point station addressed several outstanding issues about this light, in addition to the physical deterioration of the 1823 structure. By the mid-1830s, deposition of sand south of the station had extended Monomoy Point several hundred yards into the sea, threatening to distort the light's position relative to changing shoals. Lt. Edward Carpender, making the first comprehensive survey of lights for the Secretary of the Treasury, noted this problem in 1838 and anticipated a future need to move the station south. The existing station was placed about 140 feet south of the first, near the southwest corner of the federal tract (see Figure 2). Carpender also stressed the growing importance of the Monomoy Point light to coastal traffic, a point implied by repeated recommendations during the 1840s to increase the light's brilliance, and to increase its height in planning the existing Monomoy Point station. There is little documentation on the initial illumination system installed in the existing station, but lamps and reflectors mentioned in the light construction contract probably refer to the modified Lewis system installed in American lights c. 1835-50. Although far less efficient than the Fresnel lenticular apparatus used in France, the modified American system was improved by eliminating the so-called magnifying lens, making the reflectors more heavily silvered and more nearly paraboloid, using larger panes of glass in the lantern, and improving lantern ventilation to diminish visibility-inhibiting smoke (Clipping File, Monomoy Point Light; Correspondence from the Supt. of Lights, Edgartown, MA to the Fifth Auditor, September 1833-36, and April 1942-August 1849; Lighthouse Deeds and Contracts H: 363-4; Johnson 1890: 49-50).

The most important design response to the failure of the first Monomoy Point station was a decision to make the tower of cast iron, supported by a system of heavy wooden braces and guy wires or chains, on a brick foundation. Although the early history of American cast iron light design is not yet well documented, the use of cast iron at Monomoy Point in 1849 was relatively unusual. All other extant lights in Massachusetts post-date the Civil War. At least one other cast iron light, erected in 1844 at Long Island Head in Boston, predated the Monomoy Point light in this region. Selection of cast iron at this time may imply recognition of particular site difficulties. The original designed foundation apparently followed some contemporary American iron light foundations at unstable ground surfaces, with pile-supported iron plates, but prior to erecting the tower, a decision was made that brick would be more secure. The proven structural hazards at Monomoy Point of wind-blown sand probably made a strongly-anchored cast iron tower desirable, since it was lighter (and less expensive) than a masonry structure but more stable and rot-resistant than a wooden tower. The absence at this station of a pier or landing of any kind at this time, and the probable difficulty involved in transporting and erecting the large cast tower sections, suggests a concern

with stability at this secondary light somewhat unusual during the Fifth Auditor's administration. Unlike the light, which followed some kind of standard engineering pattern, the lightkeeper's house was a vernacular structure reflecting local architectural traditions (Lighthouse Deeds and Contracts H: 363-4; personal communications, Robert Shiner, Nancy Salzman).

Less than three years after completion of the existing station, the new Lighthouse Board decided to adopt the French system of illumination, based on Fresnel lenses for all American lights. This well-documented system, an elaboration of Augustin Fresnel's optical work of 1819-22, a surrounding polygonal lens of glass refractors and reflectors which direct all the light into.parallel rays, and oil-feeding mechanisms. The principal advantages over earlier systems were greater, more reliable brilliancy and more fuel economy. The French system called for six standard orders of lamp arrays and glass lens sizes, based on the distances between the center of the lamp and the inner surface of the lens. The Lighthouse Board purchased virtually all such lenticular apparatus from French manufacturers, who supplied complete systems with patented oil-feeding mechanisms. The prominent Parisian firm of Henri Lepante (or Lepaute, in some documents) supplied apparatus for many American lights, including the Monomoy Point station, where light refitting evidently occurred in late 1857. Monomoy Point light retained its Fourth Order apparatus for the remainder of the station's active service, with the lamp about 35 feet above the ground and about 47 feet above mean high water. As described in Part II, work done at the station in 1857 may also have included lining of the tower with brick, and construction of a connecting wood frame passage between the house and tower (Clipping File, Monomoy Point Light; Index to Correspondence received by the Lighthouse Board re: Monomoy Point Lighthouse 1852-1900; Descriptions of Light Stations 1876-1938, Monomoy Point Light Station, March 11, 1922; Anonymous n.d.; Johnson 1890: 50-51; Weiss 1926: 33-4).

The Lighthouse Board and the later Bureau of Lighthouses made few subsequent changes in the Monomoy Point illumination system. Beginning in 1871, district officers began recommending the upgrading of the light to second-order status, with a white fixed light varied by red flashes. The dangers of the shoals east of Monomoy Beach, later noted as one of the most wreck-prone areas in the East Coast shipping lanes, may have prompted these requests, which the board did not approve. Installation of a whistling buoy near the Pollock Rip Lightship, sometime before 1892, may have forestalled the perceived need for such a change. From about 1883 to 1892, district recommendations shifted to calling for installation of a red panel or sector in the lantern, the north edge of which sector would cover the whistly buoy and alert any vessels missing the buoy of the shoals. Following experiments with the red sector in 1885 and additional recommendations in 1892, the sector was installed in 1893 and remained in place through the period of the light station's service (Journals of the Lighthouse Board 9: 397-8, 15: 147, 292; Clipping File, Monomoy Point Light; Index to Correspondence received by the Lighthouse Board re: Monomoy

Point Lighthouse 1852-1900; Descriptions of Light Stations 1876-1938, Monomoy Point Light Station, March 11, 1922).

Aside from a remodeling of the dwelling c. 1900, to make it more habitable, later physical changes at the station included construction of a boathouse in 1868-69, construction of several fuel or oil houses, and alterations in the tower bracing system, as outlined in Part II. Until 1868, the station evidently maintained regular contact with Cape Cod via wagon or cart, although federally-purchased supplies, such as fuel, were probably brought by sea and unloaded somehow on nearby shore points. District recommendations for a boathouse in 1868, accompanied by a detailed map of Monomoy Point, may have followed an episode of channel-cutting which left Monomoy Beach an island. The boathouse, housing a small dory, was built on the west side of the island, in a cove known as the Powder Hole, around which private owners apparently built small cottages for seasonal fishing. The boathouse was used until c. 1900, when it was converted to a barn (Clipping File, Monomoy Point Light; Index to Correspondence received by the Lighthouse Board re: Monomoy Point Lighthouse 1852-1900; William A. Goodwin to George Blake, December 9, 1868, in Correspondence Received by the Lighthouse Board 225: 150E; Plan, Monomoy Point Lighthouse, November 1868).

Lighthouse keeping was generally an isolated, somewhat forbidding means of employment, with few regular responsibilities but many continual tasks. Keepers lit the lamp(s) each day at sunset, by observation or almanac, performed general maintenance at the station such as cleaning lantern windows, and did some less frequent tasks such as light or house painting. The reluctance to remain long at one station is reflected at Monomoy Point by personnel registers from 1841-1911, which show the keepers stayed an average of about 5.5 years. Most of the surnames suggest local origins of men -- only one wife or widow or a keeper appears in the records -- who secured what were probably patronage positions, at least through the era of the Fifth Auditor (Registers Relating to Lighthouse Personnel, Microcopy 1373, Roll 1). After 1874, when the U. S. Lifesaving Service built a station on Monomoy Beach about four miles north of the light station, there was probably regular contact between the personnel of the two otherwise unrelated services. The Lifesaving Service patrolled beaches past the light station and, in some cases, light station personnel assisted in rescue operations. At least one light station keeper at Monomoy Point was related to the nearby Lifesaving Service station chief, further strengthening such ties (Jones n.d.; Town of Chatham 1913: 60-61).

Decommissioning and Subsequent Use of Monomoy Point Light, 1923-1987

When the refitted Chatham light made the Monomoy Point station unnecessary in 1922, the government immediately sold the station to George Dunbar, the first of several private owners who made few changes in the property. By 1958, all equipment and glass in the light lantern had been removed. Two owners

installed an electric light plant and drove a new well in 1958, before selling the property to tbe Audubon Society in 1964. The society soon painted the tower and made substantial maintenance improvements to the dwelling, which became a center for guided tours of the extensive bird populations on Monomoy Point, but may also have removed one outbuilding (see Part II). There has been little maintenance during tbe last two decades and, following the purchase of the property by the U. S. Fish and Wildlife Service in 1977, the station has been largely abandoned to the informal visits and vandalism of anyone who could reach this remote, under-patrolled location (personal communications, Valerie Nelson, Robert Humphrey).

General Character and Condition of the Light Station

Time has done little to diminish the remoteness and solitude of the Monomoy Point Light Station. Gradual removal of all private cottages in the National Wildlife Refuge leaves the station more alone with the dunes and birds than it was when decommissioned. Ocean currents have continually added sand to the east and south edges of Monomoy Point, and have occasionally removed some western beach areas, changing the station's relation to the sea considerably. The high water line southeast of the station is now about 1,600 feet away, compared to some 250 feet in the same direction c. 1880, while the point now extends at least 400 feet south. There is no obvious trace of the 1823 light station, although its brick foundation and probable cistern could retain some archaeological expression, along perhaps with early nineteenth century artifacts of its use and occupation. However, a century and a half of wind on this sandy spit may have diminished the site's archaeological integrity. Tbe 1849 light and dwelling, original components of the existing station, are substantially intact with some modifications and deterioration, along with a brick oil house built in 1894. A frame outbuilding northeast of the light, once used as a fuel house and/or workshop, is gone, as are any visible remains of the boathouse at Powder Hole Cove (Plan, Monomoy Point Lighthouse, November 1868; personal communication, Robert Humphrey) [see HAER Photographs No. MA-62-1 and MA-62-2].

The light is in generally good condition, although there is water damage to the interior brick mortar and corrosion of many iron elements in the lantern. All glass and lenticular apparatus in the lantern are missing, other than the base of tbe lens. The ladder from the tower to the lantern is also gone. Despite these problems, and recent graffiti at rather venturesome elevations on the tower exterior, the light looks much as it did c. 1900 [see HAER Photographs No. MA-62-3, MA-62-5, MA-62-6, MA-62-7, MA-62-8, and MA-62-9].

The dwelling, reroofed and reshingled c. 1964, is in generally good structural condition, but has suffered from vandalism and neglect. The Fish and Wildlife Service boarded over most exterior openings to inhibit unauthorized entry, but has not entirely succeeded in stopping such acts. Graffiti mars several rooms, and the entire structure--especially the cellar--is now an oversized bird

house. Virtually all fixtures dating to the light station era are gone, and there are some holes in the floors and walls. The chimney are largely collapsed above the roof lines. The surrounding plank deck, rebuilt by the Audubon Society, remains intact, but there are no remains of the wood fence that once surrounded most of the house [see HAER Photographs No. MA-62-1, MA-62-2, MA-62-3, MA-62-4, MA-62-10, and MA-62-11].

The brick oil house, reused c. 1958 as a generator house, has suffered roof damaged but is substantially intact, with dramatic splashes of the poison ivy which covers many of Monomoy Point but generally has little on which to climb. A four-cycle gas engine generator lies inside [see HAER Photographs No. MA-62-1, MA-62-2, and MA-62-12].

First Monomoy Point Light Station

Documentation on this site appears limited to the original construction contract, comments made during inspections and in correspondence, and an 1889 plan showing the first station relative to the existing one. Dimensions shown on the plan generally confirm those specified in the contract. The description below assumes the as-built station followed the contract specifications. The dwelling, which supported the light, was a side-gabled, one-story, two-chamber, lime-mortared, 34 by 20 foot structure, with 8-foot-high walls and the longitudinal axis running northeast-southwest. An entry, which separated the two chambers, probably opened on the center of the southeast side, leading out to stairs which, if built, suggest a platform on at least that side. Stairs from one room were to reach the cellar, which was also accessible from the exterior by way of a door and steps. A brick porch or kitchen, 12 by 14 feet, was attached to the northwest corner, making a total of three rooms in an L-shaped plan. A brick cellar underlay at least the main house, with 20-inch-thick, 6-foot-high walls that extended up to form the main superstructure. Each of the two chambers probably had two 8-over-8 windows, and a fireplace and chimney centered on the short exterior wall. The kitchen had a single window, doors leading into the rest of the house and to the exterior, and a chimney with fireplace and oven. All interior walls were lathed, plastered, and painted. The shingled roof of the main structure probably continued as a shed roof over the kitchen, perhaps giving the southwest elevation a saltbox appearance. In design, the dwelling appears to have been a vernacular paired chimney house with the L-plan often found in regional Federal period homes, except for the singular difference of much heavier wall material to support the light (Figure 2; Lighthouse Deeds and Contracts D: 75-6; Plan, Monomoy Point Light Station, June-July 1889; Dempsey 1987: 177-8).

The light tower was an octagonal wood frame structure, 16 feet high above the house walls, centered on the main section of the house and standing on the roof beams. Posts, 10-by-10-inches at the bottom and 8-by-8-inches at the top, formed the principal structural elements, over which were boards and shingles. One window lit the upper portion of the tower. The 12-foot diameter of the

3-inch plank deck at the top suggests that the tower tapered from a 20-foot bottom diameter at the house walls. Tarred sheathing paper and heavy copper sheeting covered the deck, reached from the house via railed steps from the attic and a scuttle door. Above the deck, 1.5-inch-square iron posts formed an octagonal lantern, and extended below the deck 4 feet for bolting to the tower posts.

The height and diameter of the lantern were not specified in the contract, but were sufficient to allow for fixed iron sash framing eighteen lights by 9-by-12-inch glass in each panel of the octagon. One panel included a 2-by-4-foot iron-framed, copper-covered door, opening out to a 4-foot-high iron-railed deck perimeter outside the lantern. The lantern top was a dome of sixteen iron rafters concentrating into a 9-inch diameter, 4-inch-wide iron hoop, with 30-ounce copper sheathing. A cylindrical 15-inch-diameter, 2.5-foot-long ventilator of unspecified material rose from the dome, topped by a 3-foot-long, 20-inch-wide copper weather vane. The lantern, its doors, and the tower window were painted with white lead, while the dome was painted black. The illuminating apparatus, taken from the Winslow Lewis patent, included eight lamps, each with 13-inch-diameter reflectors arranged in nearly a circle, so that reflectors inadvertently interrupted light from lamps on opposite sides of the curve. The fixed light was rendered blue by placement of glass before the lamps (Lighthouse Deeds and Contracts D: 75-6; Clipping File, Monomoy Point Light).

Auxiliary structures included a frame, shingled outhouse at an unknown location, and a stone- or brick-lined cistern of perhaps 200-gallon capacity north of the house (Lighthouse Deeds and Contracts D: 75-6; Plan, Monomoy Point Light Station, June-July 1889, Scale 1:1000).

The fate of the 1823 station , after the 1849 rebuilding, remains undocumented. At least some of the brick was reused to buttress fences or bulkheads around the existing dwelling. The 1889 plan suggests the site was visible at that time (William A. Goodwin to W. B. Shulnick, June 14, 1865, in Correspondence Received by the Lighthouse Board 167: 601; Plan, Monomoy Point Light Station, June-July 1889, Scale 1:1000).

Existing Monomoy Point Light Station: Original Construction and Modifications

The 1849 light station differed principally from the earlier station in having a free-standing cast iron light tower and lantern, and an adjacent wood frame dwelling of dimensions nearly identical to those of the first house, but with an added half story. As noted below, it is unclear as to whether the two structures were originally attached. There were apparently no major auxiliary structures built in 1849-50.

Tower and Lantern

Modeled after an existing iron light in Boston and including a drawing of uncertain disposition, the 1849 Monomoy Point light contract contained few details in its text. Because there was very little documented change made to the basic light structure, and because the existing tower matches these few details and an undated drawing showing the house interior as built in 1849, most of the description that follows seems to pertain to the light as built in that year (Lighthouse Deeds and Contracts H: 363-4) [see HAER Photograph No. MA-62-18].

Located at the northeast corner of the station, the windowless tower rises 32 feet below the lantern deck from a 12-inch-thick, 12.2-foot-diameter circular, mortared-brick foundation, with undocumented footings to which the lowermost iron casting is apparently secured through the brick with twelve .75-inch-diameter bolts. The foundation consists of an upper course of bricks, 8.5-by-3.6-by-2.5-inches, laid on end, over four courses of similar bricks laid flat, with an 3.5-by-.875-inch iron collar wrapped around the upper two flat courses and bolted together immediately north of the passageway from the house. The bolted collar probably constrains the weight of the tower from spreading out the foundation, and may be a later attention, since it does not appear on the tower plan [see HAER Photographs No. MA-62-6 and MA-62-13].

The tower includes seven 1-inch-thick cast iron sections, the lowermost of which is a 12-inch-high flared base with a 12-foot lower diameter, and a solid upper diameter of about 8 feet, which forms the lower floor of the tower. The next section, with a flared bottom bolted to the bAse, is an 8-foot-outer-diameter, 5.1-foot-high cylinder through which one entered the tower by way of a 30-by-57-inch cast iron door opening about 1 inch above the tower floor. The five uppermost sections create a narrower, partially conical form with a slightly flared top. The lowermost of these five sections has a bell-like, flared lower end bolted to the wider section below. The lower ends of the upper four sections are flanged to meet the tops of adjacent sections, making bolted, pipe-section-like joints. From bottom to top, the heights and inside diameters of the upper five sections are, respectively, 6.8 and 7 feet, 6.5 and 6.5 feet, 5.3 and 6.3 feet, 5.2 and 7 feet, and .9 and 5 feet. The 11.3-foot-diameter, 1-inch-thick cast iron lantern deck rests on top of the highest tower section. Four octagonal, 8-inch-diameter openings in the lantern deck, once filled with glass, lit the tower from above [see HAER Photographs No. MA-62-5, MA-62-6, MA-62-7, and MA-62-13].

Thirty-one cast iron steps with a narrow bannister spiral around a 4-inch-diameter column to rise about 24 feet from the tower floor to a railed quarter-circle iron platform, on which a now-mission 6-foot-ladder rose to the lantern deck. Except for the free-standing, 32-inch-long steps in the

lower tower section, the steps are set sbout 6 inches into a 9-inch-thick brick lining which curves to match the iron sections, with the step lengths also varying with the tower curvature. The steps are appsrently not bolted to the iron sections, which instead are bolted to the brickwork. This arrangement sppears original, slthough one original source states that the brick lining was added in 1857--the same year the lenticular apparatus was installed. There is no record of the steps being replaced, no note of brick lining in the text of the original contract, and no obvious indication that any of the bolts visible on the tower exterior meet the steps. It is therefore possible that the original tower had an entirely free-standing spiral stsir, and that the brick was added between steps and tower sections in 1857. The surviving plan, showing the brick lining, could thus date from 1857. If the brick was an addition, it may reflect a need to provide more stability to a tower supporting a greater lens weight, and/or a need to make the stair ssfer (Clipping File, Monomoy Point Light) [see HAER Photographs No. MA-62-8 and MA-62-13].

The lantern, entered via the ladder through a small curved hatch with a missing door, is a sixteen-sided, 7.5-foot-diameter structure of 1-by-2-inch cast iron rods about 6.2 feet high. The rods are bolted to circular iron plates and rods which join the rod tops and bottoms, and which form sills for the lantern windows 25 inches from the deck. Each window was a single pane 1.3 by 4 feet. An iron dome with pyramidal ventilator, formerly topped by a weather vane, caps the lsntern. Around the lantern sides, the circular deck extends another 1.75 feet, with a 3-foot-high iron rail whose upper horizontal member defines a 1.25-foot-diameter circle and thus balances the tower's broadened base. There is no door to the area outside the lantern, leaving open the question of how the keeper reached this area to clean the lantern glass. Missing curtains, hung from hooks still attached to the circular rod joining the vertical lantern members, protected the lenticular apparatus from sun-inflicted damage [see HAER Photographs No. MA-62-3, MA-62-9 and MA-62-13].

There is no originsl data on the illuminating system that was first installed in 1849, although as noted above it was most likely s modified version of the Lewis system already in use. The Fourth Order lenticular apparatus, installed in 1857, but now missing, had a Fresnel lens with a 19.25-inch interior diameter, and was marked "made by Henri Lepsnte." The Argand-type lamp, with a single 1.25-inch-diameter mantle, created a fixed white light projected in a 90 degree arc, with a lesst one of the lantern panes replaced or covered by a red material in 1892. Only the iron pedestal to this system, 32 inches high with a 1.3-foot-diameter top, remains today. Sometime late in the 19th century, station operators converted the apparatus to kerosene fuel from, probably, lard oil (Descriptions of Light Stations 1876-1938, Monomoy Point Light Station, March 11, 1922; Johnson 1890: 54-6) [see HAER Photograph No. MA-62-9].

Until c. 1892, the tower had a bracing system of timber and chains or guy wires, with angled, sunken timber anchors. It is not clear if this system, evidently intended to reduce vibration in high wind, was original construction or was added in 1857. A simpler system was later added, consisting of an iron collar bolted around the tower about 1.48 feet from the base, four rods with eye holes extending from the collar and, presumably, guy wires which are no longer in place [see HAER Photographs No. MA-62-5, MA-62-7 and MA-62-13].

An eroding, vegetation-covered brick walk, in place by 1889 but of unknown date, once formed an 8.5-foot-wide ell around the northeast corner of the house and passageway. The depth and function of the walk, relative to the protective wooden platforms around the house discussed below, are not clear but may relate to minimizing sand movement around the tower foundation. Primary sources suggest the tower exterior was always painted red. The tower interior walls were painted white, with green steps, during at least some of the station's active period. The lantern was probably black (William A. Goodwin to W. B. Shulnick, June 14, 1865, in Correspondence Received by the Lighthouse Board 167: 601; Monomoy Point Light Station, June-July 1889, Scale 1:200).

Lightkeeper's House

Comparison of the 1823 light station contract, the 1849 house contract, a later plan of the first floor as built in 1849, and 1987 conditions indicate that the existing dwelling was originally very similar in plan to the first. The living and cooking areas originally encompassed a story-and-a-half L-plan, with a brick cellar under the entire L, two parlors and a kitchen on the first floor, and four sleeping chambers and a small attic area on the second floor. The side-gabled main station, oriented more or less east-west longitudinally, is 19.4 by 33.5 feet, with a 13 by 14 foot kitchen wing at the northwest corner [see HAER Photographs No. MA-62-13 and MA-62-18].

The 1-foot-thick mortared brick cellar walls begin about 4 feet below the surface and rise 6 feet from a floor of bricks, laid broadest side up. Although not specified in the 1849 contract, the cellar floor could be original at a site where concern for minimizing sand movement was paramount. About midway along the west side, at a location matching the earliest extant plan of the house, the cellar walls project outward to form a 4-by-5-foot stairwell once covered by a sloping door. Three 3-light windows provide some natural illumination. Virtually all of the interior cellar features, outlined below, appear to date from the house remodeling of c. 1900 or from later modifications (Lighthouse Deeds and Contracts H: 373-7; Jones n.d.) [see HAER Photographs No. MA-62-13 and MA-62-18].

Above the cellar, the 1849 house was a wood frame, paired chimney structure apparently lacking any kind of exterior ornament. In addition to a central door on the south side leading to a hall, there was a separate covered entry to the kitchen at the northeast corner of the L. The main section still has the 8-inch-square sills, and 8-by-3-inch lower floor joists on top of the cellar walls, originally specified in the contract. It is unclear if the existing members date to 1849. Most of the framing probably follows the 1849 plan, which called for 2-by-7-inch upper floor joists supported about 8.75 feet above the lower joists on framing of 8-inch-square posts and 3-by-4-inch wall studs. Framing members in the kitchen were of slightly smaller dimensions. The arrangement of rooms, fireplaces, stairs and closets, defined by lathed and plastered walls "..finished in a plain and decent manner," closely follow the vernacular pattern of the 1823 station house [see HAER Photographs No. MA-62-13 and MA-62-18]. The boarded and shingled roof, of 4-by-4-inch rafters on 3-by-6-inch plates, formed a gabled rectangle over the main section of the house, with a shed roof built over the kitchen wing. Most windows had twelve lights, 6-over-6 and double hung, with 9-by-12-inch or 8-by-10-inch panes; a smaller window in the room over the kitchen had six 8-by-10 lights. The contract called for all windows to have shutters. All evidence of house color indicates the dwelling had a white exterior (Lighthouse Deeds and Contracts H: 373-7; Descriptions of Light Stations 1876-1938, Monomoy Point Light Station, March 11, 1922).

The 1849 dwelling had few amenities, most or all of which have disappeared in the course of later work on the structure. Original privy locations are unknown. Three fireplaces provided heat, with the one in the kitchen equipped with an iron-doored oven. A sink beside the chimney evidently had a copper pump to take water from a 1200-gallon brick cistern beneath the kitchen. Contract specifications for the cistern, probably still in place at an undocumented location, included 1-foot-thick walls with an interior coat of cement. In 1868, the Lighthouse Board had a kitchen sink replaced in iron, and a wash boiler was added to the cellar, at a time when review of the Monomoy Point facilities also included planning for a boathouse. The wash boiler or set-tub included a cauldron and oven built into brick. Although the wash boiler does not survive, brick walls at the northwest corner of the cellar may mark the boiler's location (Lighthouse Deeds and Contracts H: 373-7; William A. Goodwin to W. B. Shulnick, June 14, 1865, in Correspondence Received by the lighthouse Board 167: 601; Jones n.d.).

To protect the house foundation from the sand movement which damaged the first Monomoy Point station, the 1849 contract called for two platforms outside the house, each to within 6 inches of the door sill tops, with 6-by-6-inch sills on posts, 3-by-4-inch stringers, and 2-inch plank decks, surrounded by close board fences. A 10-foot-wide platform ran along the south side of the house, and a 13-foot-wide platform apparently ran 19 feet

along the southwest side of the house. By 1889, when there was unspecified repair work on the platform, it extended all around the house except for the area covered by brick near the light. At that time, it was 13 feet wide on the south and west sides of the house, 18 feet wide on the north side around the covered passageway discussed below, and at least 19 feet wide to the east where it also filled the open space formed by the house L-plan. The Audubon Society rebuilt the platform c. 1964, so that it is presently 8 feet wide on the south, west, and southeast sides of the house, and 12 feet wide to the north where it extends about 14 feet along the covered passageway. The platform presently consists of 7-inch-diameter piles, 3.5-by-5.25-inch stringers, and 1.5-inch-thick planks 5.5 to 11.5 inches wide. Other protective measures against sand movement taken by the Lighthouse Board included erection of hundreds of feet of fence running in several directions from the house; limited remains of the fencing are still visible (Lighthouse Deeds and Contracts H: 373-7; William A. Goodwin to W.B. Shulnick, June 14, 1865, in Correspondence Received by the Lighthouse Board 167: 601; Clipping File, Monomoy Point Light).

A 7.5-foot-wide covered, wood frame passageway, one step lower than the rest of the lower house floor, connects the kitchen with the light tower, extending 16 feet beyond the kitchen's northeast corner. The shed roof over the kitchen wing also covers the passageway, and extends at the same angle along the latter's entire length. Although neither of the 1949 contracts mentions this feature, which presumably would have been considered a job for the housebuilder, the passageway appears on the undated plan of the station as probably built by 1857. It is therefore possible that the passageway was added during the first decade of the 1849 station's occupation. The undated plan, an 1889 site plan, and surface color differences on the tower all indicate that there was a narrow, probably gabled, frame connection between the doors of the passageway and the tower. No other physical evidence of this feature survives. The easternmost 7.3 feet of the passageway is a small room defined by a board wall, approximating the arrangements shown on the undated plan. A 25-inch-wide door opposite the kitchen allowed exterior entry into the passageway. which connected with the kitchen through a similar door. At least through the early 1880s, the passageway served as a workshop for the keeper (Plan, Monomoy Point Light Station, June-July 1889, Scale 1:200; Jones n.d.) [see HAER Photographs No. MA-62-3, MA-62-6 and MA-62-13].

In 1898, Major William Stanton, the engineer for the 2nd Lighthouse District, began urging the Lighthouse Board to make substantial improvements to the house. Stanton noted that the house was in bad condition, with poor interior arrangement of rooms which made the dwelling very cold in winter. Although never apparent in any surviving correspondence, the wishes of the keepers and the demands of their families no doubt had some influence over such requests. Stanton's plans, formerly submitted in July 1899 with drawings reproduced for windows, enlargement of

the kitchen, addition of a bathroom in the covered passageway, rearrangement of the upper chambers, removal of the small exterior entry and all fireplaces, installation of two interior chimneys for use with coal stoves, and the addition of direct hot water heat. His plans included extensive alterations to the roof, including addition of a large fabled wall dormer over the kitchen to create a larger chamber with a gabled roof dormer window, two gabled roof dormers with windows on the south side of the house, and a windowless shed-roofed dormer at the corner of the L-plan to encompass a new upper hall. Stanton added some folk Victorian details to his plans, notably pedimented roof dormers and raked cornices at the three ends of the L-plan (the latter inferred from the plans by the construction of the wall dormer). Although sympathetic, the board postponed the recommended improvements pending availability of funds, and apparently allowed for piecemeal implementation of a simplified version of stanton's plans c. 1900 (William Stanton to the Lighthouse Board, October 1, 1898, July 13, August 16, and September 14, 1899, Correspondence Received by the Lighthouse Board 1248: 286-8, 1319: 60, 212, 24-8) [see HAER Photographs No. MA-62-14, MA-62-15, MA-62-16, MA-62-17, and MA-62-18].

Existing conditions indicate the basic rearrangements suggested by Stanton were followed, with the exception of roof alterations and purely decorative elements which added to construction costs. Added windows had double-hung 12-over-12 sashes, rather than the 6-over-6 arrangements shown in the plans. Where plans called for complete rebuilding of most of the original roof, the rebuilding retained in old roof lines with the addition of dormers. The only embellishment of the roof additions was the raked cornice on the added wall dormer. Although no trace of the added heating equipment survives, a 1922 inspection report noted direct hot water heat. The cellar today retains a 5.5-by-10.5-foot wooden enclosure once used as a coal bin for the boiler, and for the small stoves implied by chimney pipe openings in the rooms above. There is no trace of the bathtub in Stanton's plan, though the room designated as a bathroom in the passageway exists. All other additions to the house, notably electrical fixtures, postdate the light station's federal service [see HAER Photographs No. MA-62-1, MA-62-2, MA-62-3, MA-62-4, MA-62-10, MA-62-11, MA-62-14, MA-62-15, MA-62-16, MA-62-17, and MA-62-18].

Other Structures

The 1868-9 boathouse, possible converted to a barn c. 1900, was a frame structure 27.7 by 14.3 feet, with a 31.4-9.5-foot slip. There is little documentation available on this structure, located on Powder Hole Pond which formerly opened to Nantucket Sound (Plan, Monomoy Point Light Station, June-July 1889, Scale 1:200).

Until c. 1883, all light fuel was evidently stored in the cellar. Beginning about that time, separate fuel houses protected the kerosene used

for the lamp. There may have been two such structures near the light, the second being a 16.4-by-9.3-foot frame fuel house immediately north of the tower. Although replaced in 1894 by a brick structure 123 feet northwest of the house, the second frame fuel house survived to c. 1964. The slate-roofed, front-gabled brick fuel house, reused c. 1958 as a generator house, is 10.5 by 8;.75 feet, has a single door on its south side under a shallow brick arch (Plan, Monomoy Point Light Station, June-July 1889, Scale 1:200; personal communication, Valerie Nelson) [see HAER Photograph No. MA-62-12].

PART III. SOURCES OF INFORMATION

Plans and Drawings

Original contract and correspondence records suggest that relatively few plans or drawings were ever generated for the Monomoy Point Light Station. With the possible exception of the 1849 light plan, most of these plans and drawings appear to survive in somewhat scattered fashion. All sources listed below were consulted for this documentation. National Archives Records of the U.S. Coast Guard, cited in Source III below, included two additional plans not found elsewhere. Copies available from the first two sources precluded any search of the separate National Archives Cartographic Division. Where duplicate copies are available, only the more readible copy is cited, the National Archives may have original copies. Asterisked items noted below appear as photographs made for this documentation.

I. Source: U.S. Coast Guard
New London, CT 06320-4195
Contact: Mary McKenzie, Head of Public Services

This plan is on microfilm:

Benson, F.S.
1868 Monomoy Point Light-House, Mass. Plan of Site, Second Light-House District, W.A. Goodwin, Acting Engineer.

II. Source: U.S. Fish and Wildlife Service, Northeast Region 5
One Gateway Center
Newton Corner, MA 02158
Contact: John S. Wilson, Regional Historic Preservation Officer

Blueprint copies of the following plans are available:

Anonymous
*n.d. Monomoy L.H.

Stanton, Maj. William
*1899a Monomoy Point Lt. Station, Mass., showing proposed alteration and improvement of dwelling. No. 1343. Sheet 1 of 5. First Floor Plan.

*1899b Monomoy Point Lt. Station, Mass., showing proposed alteration and improvement of dwelling. No. 1343. Sheet 2 of 5. Second Floor Plan.

*1899c Monomoy Point Lt. Station, Mass., showing proposed alteration and improvement of dwelling. No. 1343. Sheet 3 of 5. Elevation. (An alternative not followed).

*1899d Monomoy Point Lt. Station, Mass., showing proposed alteration and improvement of dwelling. No. 1343. Sheet 4 of 5. Elevation. (An alternative partially followed).

*1899e Monomoy Point Lt. Station, Mass., showing proposed alteration and improvement of dwelling. No. 1343. Sheet 5 of 5. Showing outline of present dwelling. First floor plan.

III. Source: National Archives
Washington, DC 20408
Contact: William Sherman, Archival Specialist

The following plans appear in Records of the U.S. Coast Guard, Lighthouse Sites, Monomoy Point, Massachusetts No. 47:

Adams, E. P.
1889a Monomoy Point Light Station, Mass. Scale 1:1000.

1889B Monomoy Point Light Station, Mass. Scale 1:200.

Historic Views:

Very few historic views appeared in sources consulted for this documentation, although there may be others scattered in private hands and perhaps in maritime museums. None other than very small-scale sketches made from offshore appeared in National Archives materials, although two photographs, both probably misdated and misfiled, were once copied from a National Archives file on another light. The copies are available at the Shore Village Museum in

Portland, Maine. Both show the light station prior to 1900, with two different systems of tower bracing and two different fuel houses adjacent to the tower. Prints of these views were not available during the period allotted for this documentation.

Interviews and Personal Communication, July and August, 1987:

1. Robert Shiner
   Coast Guard Historian
   G-BPA
   U.S. Coast Guard Headquarters
   Washington, D.C. 20593
   (202-267-0948)

2. Valerie Nelson
   Vice President
   The Lighthouse Preservation Society
   P.O. Box 736
   Rockport, MA 01966
   (617-281-6336)

3. Kenneth Black
   Director
   Shore Village Museum
   Rockland, ME
   (207-594-4950)

4. Francis R. Howland
   Silver Spring, MD
   (301-384-2532)

5. Nancy Salzman
   Nancy Salzman Associates
   68 Francis Avenue
   Cambridge, MS 02138-1912

6. Robert Humphrey
   Manager
   Monomoy National Wildlife Refuge
   Chatham, MA

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Primary Sources:

All available primary documentation appears in National Archives Records of the U.S. Coast Guard, Record Group 26, or in Records of the Treasury Department, Record Group 36. Material filed in Record Group 26 includes:

Index to Correspondence Received by the Lighthouse Point re: Monomoy Point Light Station, 1852-1900

Correspondence Received by the Lighthouse Board, 2nd District Inspector, 1852-1900 (limited series, once heavily damaged by fire)

Journals of the Lighthouse Board, with index 1852-93

Descriptions of Light Stations 1876-1938: Monomoy Point Light Station, March 11, 1922, described by 1st Asst. Supt. F. G. Morse on Form 60

U.S. Lighthouse Service Clipping Files, Edgartown, Massachusetts District 2, Monomoy Point

Lighthouse Site Files, Monomoy Point, Massachusetts No. 47

Lighthouse Deeds and Contracts, Vol. D, 1822-27, and Vol. H, 1848-50.

Correspondence from Supt. of Lights, Edgartown, MA to the Fifth Auditor, September 1833-1836, and April 1842-August 1849.

Registers Relating to Lighthouse Personnel, New England 1845-1912, Microcopy 1373, Roll 1

Material filed in National Archives Record Group 36, none of which has yet proven useful for study of the Monomoy Point Light Station, includes:

Correspondence of the Secretary of the Treasury with Collectors of Customs at Boston, 1789-1833, Microcopy 178

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Witney, Dudley
1975 The Lighthouse. Boston: New York Graphic Society.

Likely Sources Not Yet Investigated:

There appear to be three kinds of potentially available data needed for further study of Monomoy Point Light Station: searches of local newspapers for notes on incidents involving light station personnel; searches of private collections and museums for historic views; and study of the historic context of early cast iron light design and manufacture through primary contract data, survey of existing sites, and census or directory data on foundries and designers. Use of any of these sources will require extensive research.

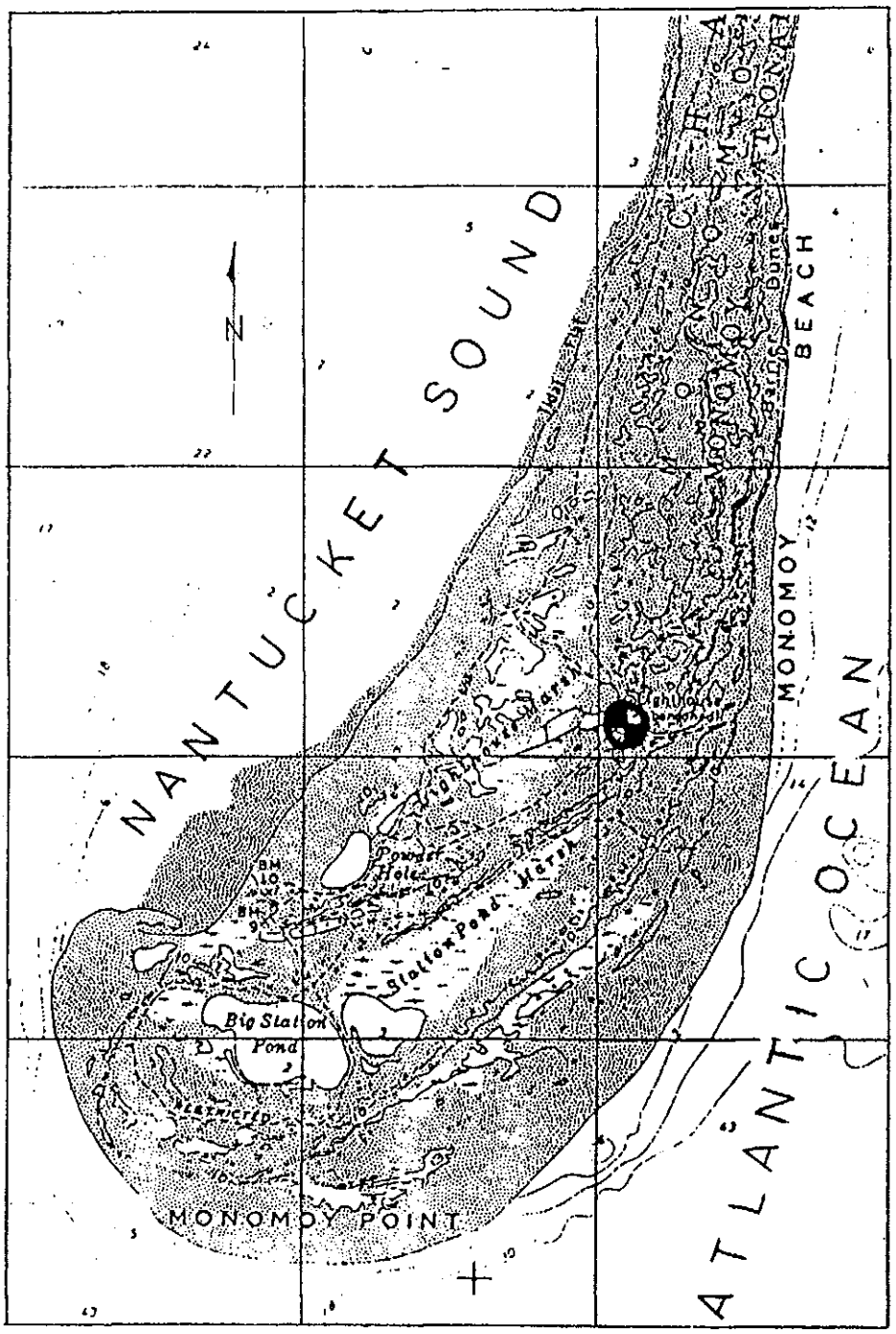

Figure 1. MONOMOY POINT LIGHT STATION LOCATION

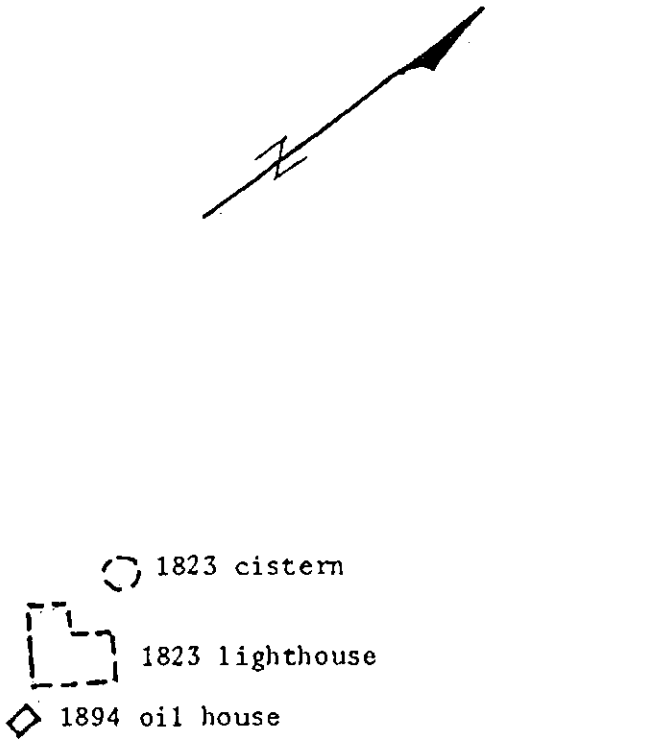

Figure 2. PLAN OF 1823 AND 1849 MONOMOY POINT LIGHT STATIONS
(dotted features have no surface expression; boathouse not shown)
Source: E.P. Adams 1889a